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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,474	10/17/2000	Hiroaki Okamoto	OKAMOTO7	7869

1444 7590 05/20/2004

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WASHINGTON, DC 20001-5303

EXAMINER

WILLS, MONIQUE M

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/601,474

Applicant(s)

OKAMOTO ET AL.

Examiner

Monique M Wills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,5,11 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 1-3,6-9,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 10,12,13,19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Request for Continued Examination*

The Request for Continued Examination (RCE) filed on June 12, 2003, under 37 CFR §1.114 based on parent Application No. 09/601,474 is acceptable and an RCE has been established. An action on the RCE follows.

Applicant enclosed an IDS for consideration of JP 5-84025. The reference does not teach or suggest a metal foil coated with an organic layer, and therefore, is patentably distinct from the subject invention.

Claims 1-3,6-9, 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka U.S. Patent 5,580,679. Claims 4,5,16-18 are allowable over the prior art of record. Claims 10,12,13,19 & 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,6-9, 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka U.S. Patent 5,580,679.

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Tanaka teaches a non-aqueous battery comprising an end cap having an opening and a sealing metal plate (abstract). With respect to claims 1-3 & 6-7, Tanaka teaches a method of forming a protection film of a safety valve element for a battery comprising metal substrates 10 & 11 (col. 5, lines 10-15 & col. 22, lines 65-68) each with a hole extending there through, and a metal foil 7 (col. 5, lines 5-15) heat sealed or laminated to substrate 10 (col. 45-55), to cover holes in substrates 10 & 11 (Fig. 2). With respect to claims 1, 3 & 14, the organic coating is coated on one side of the metal foil (Fig. 1 & col. 25, lines 25-40). With respect to claims 2 & 15, the organic material is laminated on the metal foil as a resin film (col. 1, lines 62-68). With respect to claims 6 & 7, the organic coating embraces Applicant's protection film (Fig. 1). With respect to claim 8, the organic material is laminated on the metal foil as a continuous resin film (Fig. 1, and col. 1, lines 62-68). The instant claims are anticipated by the prior art set forth. The limitation in claim 8, with respect to the organic coating being continuous, is considered to be an inherent property of the coating set forth in the prior art, because Tanaka illustrates, in Figure 1, a coating without any scores, cuts or breaks, rendering said coating continuous. The limitation in claim 9, with respect to the protection film being an uncut laminate film, is considered to be an inherent property of the coating set forth in the prior art, because Tanaka teaches coating organic material on metal foil with a heat roller (col. 1, lines 55-68). In other words, the coating is not formed from a pre-cut laminate sheet.

***Allowable Subject Matter***

Claims 4,5,16-18 are allowable over the prior art of record, because the prior art is silent to a method of forming a protection film for a battery comprising: applying an organic coating to a metal foil and laminating the metal foil to a metal substrate

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having a first hole there through, wherein the metal substrate is applied to a closing plate having a second hole, such that the first hole and second hole are connected, and the metal substrate and closing plate are adhered together around the second hole.

Claims 10,12,13,19 & 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10,12,13,19 & 20 would be allowable over the prior art of record, because the prior art is silent to a method of forming a protection film for a battery comprising: applying an organic coating to a metal foil and laminating the metal foil to a metal substrate having a first hole there through, wherein the metal substrate is applied to a closing plate having a second hole, such that the first hole and second hole are connected, and the metal substrate and closing plate are adhered together around the second hole.

The prior art, such as Tanaka U.S. Patent 5,580,679, teaches a metal substrate 11 with a first hole and a closing plate 8 with a second hole. The reference is silent to the first hole and second hole being connected such that first hole adheres around the second hole of the closing plate. Therefore, the reference is patentably distinct from the instant claims.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571)

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272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.


If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Randy Gulakowski, may be reached at 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

5/14/04

  
BRUCE F. BELL  
PRIMARY EXAMINER  
GROUP 1746